

Complete Summary

GUIDELINE TITLE

Standard precautions in hospitals. In: Prevention and control of healthcare-associated infections in Massachusetts.

BIBLIOGRAPHIC SOURCE(S)

Standard precautions in hospitals. In: Betsy Lehman Center for Patient Safety and Medical Error Reduction, JSI Research and Training Institute, Inc. Prevention and control of healthcare-associated infections in Massachusetts. Part 1: final recommendations of the Expert Panel. Boston (MA): Massachusetts Department of Public Health; 2008 Jan 31. p. 42-9.

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE
 METHODOLOGY - including Rating Scheme and Cost Analysis
 RECOMMENDATIONS
 EVIDENCE SUPPORTING THE RECOMMENDATIONS
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 INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT
 CATEGORIES
 IDENTIFYING INFORMATION AND AVAILABILITY
 DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

Healthcare-associated infections, including:

- Catheter-associated urinary tract infection
- Surgical site infection
- Ventilator-associated pneumonia
- Bloodstream infection

GUIDELINE CATEGORY

Prevention

CLINICAL SPECIALTY

Infectious Diseases
Internal Medicine
Preventive Medicine
Surgery

INTENDED USERS

Advanced Practice Nurses
Hospitals
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To provide evidence-based recommendations for a statewide infection control and prevention program to improve health outcomes by reducing the risk of acquiring and transmitting healthcare-associated infections
- To provide recommendations for standard precautions in hospitals

TARGET POPULATION

Hospital patients at risk of healthcare-associated infections

INTERVENTIONS AND PRACTICES CONSIDERED

1. Hand hygiene
2. Use of personal protective equipment (PPE) including gloves, gowns, masks, goggles, and others
3. Respiratory hygiene
4. Patient placement
5. Care of equipment and instruments/devices
6. Handling of textiles and laundry
7. Safe injection/lumbar puncture practices

MAJOR OUTCOMES CONSIDERED

Incidence of healthcare-associated infections

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The Expert Panel was divided into six task groups. In order to generate sound, evidence-based recommendations, a comprehensive reference library was created for each task group comprising articles, publications, and other materials relevant to their work. An expert in library science, aided by a JSI Research and Training Institute, Inc. (JSI) staff member with experience in literature review, conducted literature searches, selected articles for inclusion, and managed and organized the task group libraries. For the purpose of the project, JSI gathered an extensive body of literature (over 2000 published articles). Starting with the reference library of a local healthcare associated infections (HAI) expert, it was supplemented and updated to include the most current articles and expanded on recommendations made by Expert Panel and task group members. Figure 1 in the original guideline document summarizes the literature review process.

Literature searches were conducted in PubMed using applicable Medical Subject Headings (MeSH) and key words. Refer to Figure 2 in the original guideline document for information on literature search methodology.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Level of Evidence Ranking

Level I: Strong evidence from at least one well-designed randomized controlled trial

Level II: Evidence from well-designed non-randomized trials; cohort or case-controlled analytic studies (preferably from >1 center); multiple time-series studies

Level III: Well-designed descriptive studies from more than one center or research group

Level IV: Opinions of authorities (e.g., guidelines), clinical evidence; reports of expert committees

Level V: No quality studies found and no clear guidance from expert committees, authorities or other sources

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

To aid the task groups and Expert Panel in their decisions, JSI Research and Training Institute, Inc. (JSI) generated qualitative summaries and reviews of relevant literature, outlining the current "state of the science" on task group-indicated topics of debate. All selected studies were critically assessed for internal validity or methodological rigor and only those with high quality of evidence grades were considered in generating evidence-based recommendations.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Consensus Development Conference)
Expert Consensus (Delphi)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The 2006 Health Care Reform Law directed the Massachusetts Department of Public Health (MDPH) to establish a comprehensive state wide infection prevention and control program. To direct this new effort, a healthcare-associated infection (HAI) Expert Panel was convened in November 2006 under the auspices of the Betsy Lehman Center for Patient Safety and Medical Error Reduction and MDPH. This multidisciplinary panel of experts included infectious disease specialists, epidemiologists, infection control and hospital quality professionals, consumers, professional organizations, and hospital executives and clinical leaders. Research, coordination and facilitation of the work of the Expert Panel and the associated Task Groups was provided by JSI Research and Training Institute, a public health research and consulting firm located in Boston.

The mission of the Expert Panel was to provide guidance on all aspects of a statewide infection control and prevention program, review the key elements of such a program, and submit their completed recommendations to the Betsy Lehman Center and the Massachusetts Department of Public Health by January 31, 2008.

The Expert Panel held twelve monthly meetings beginning on November 30, 2006. Due to the multi-faceted nature of the Panel's charge, six Task Groups were formed in order to focus the efforts of Panel members on their respective areas of expertise.

1. Bloodstream and Surgical Site Infections (BSI, SSI)--Prevention, Surveillance, and Reporting
2. Optimal Infection Control Program Components
3. Ventilator-Associated Pneumonia (VAP)--Prevention, Surveillance, and Reporting
4. Methicillin-Resistant *Staphylococcus aureus* (MRSA) and Other Selected Pathogens--Prevention, Surveillance, and Reporting
5. Public Reporting and Communication
6. Pediatric Affinity Group--Prevention, Surveillance, and Reporting

Panel members were asked to join at least one group, aligning with their expertise and interest. Additionally, group membership was supplemented with experts and stakeholders from outside the Expert Panel. Each task group was led by an Expert Panel member (Task Group Leader) who facilitated the calls and assisted in the

literature review process. Task groups held one-hour-long conference calls every three weeks. A JSI coordinator supported each task group by reviewing and summarizing the literature and aiding in drafting recommendations. Coordinators were also responsible for all administrative work including minute taking, distribution of materials, and communication between the Expert Panel and task groups.

Due to time and capacity limitations, catheter-associated urinary tract infections (CAUTI) were not a specific task group topic. However, the product of a parallel process of evidence review and guideline updating, by experts representing the Infectious Disease Society of America (IDSA) and the Society for Healthcare Epidemiology of America (SHEA), was graciously made available to our project. An ad hoc committee of Expert Panel members and outside experts studied and endorsed these prevention guidelines and they have been incorporated into this final report.

Expert Panel recommendations, in addition to being scientifically sound, needed to take into account the current practices of infection control programs in Massachusetts. For this purpose, JSI surveyed infection control program directors across the Commonwealth in the areas of prevention, surveillance, reporting, and education relating to HAIs. The comprehensive survey questionnaire was developed using a review of current literature, expert reports, and existing surveys. After receiving input and approval from the Expert Panel and the Harvard Pilgrim Health Care Institutional Review Board, the survey was piloted in six hospitals. Once final revisions were made, the survey was mailed to the infection control program of all 71 acute care (non-Veterans Administration) hospitals in Massachusetts. A follow-up phone interview was also conducted to solicit more qualitative information and clarify any answers on the written survey. The completed survey responses were analyzed and results were distributed to project members to aid in their decision-making.

Taking into consideration both the results of the survey and the evidence, task groups drafted recommendations in the areas of HAI prevention and reporting. When voting, either during meetings or electronically, task group members had the opportunity to make comments and suggest additional changes. JSI then tallied the task group votes, reviewed comments, and brought back any major points of contention to the task group.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Strength of Recommendation Ranking

Category A: Strongly recommended

Category B: Recommended for implementation

Category C: Consider for implementation

Category D: Recommended against implementation

Category UI: Unresolved issue

No recommendation: Unresolved issue. Practices for which insufficient evidence or no consensus regarding efficacy exists.

COST ANALYSIS

The annual economic burden of healthcare-associated infections (HAI) in Massachusetts ranges from approximately \$200 million to well over \$400 million. While it is difficult to determine a precise estimate, it is clear that these infections are costly. Mandatory reporting of institutional-level HAI is a potential tool for improvement of quality of care and a method to be used by consumers, insurers, or providers to make decisions regarding where to seek or fund healthcare. If HAI are reduced with mandatory reporting, societal cost-savings should be anticipated. However, the effect of mandatory reporting on HAI rates is yet unknown. Additionally, increased costs to the hospitals and the Department of Public Health (DPH) should be anticipated. The methods used in this report should be beneficial to other state DPH. With limited resources and the potential benefits of public reporting yet to be established, there is a need to carefully balance the additional burden of reporting with current prevention efforts in order to obtain the optimum outcome, less infections.

Refer to *Prevention and Control of Healthcare-Associated Infections in Massachusetts, Part 2: Findings from Complementary Research Activities* (see the "Availability of Companion Documents" field) for more information on cost-analysis.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Once recommendations were approved by the task group members, they were presented to the Expert Panel for consideration and any necessary final revisions.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the Massachusetts Department of Public Health (MDPH) and the National Guideline Clearinghouse (NGC): *Prevention and Control of Healthcare-Associated Infections in Massachusetts* guideline has been divided into individual summaries. In addition to the current summary, the following are available:

- [Hand hygiene recommendations](#)
- [Contact precautions in hospitals](#)
- [Environmental measures for the prevention and management of multi-drug resistant organisms](#)
- [Prevention of ventilator-associated pneumonia](#)
- [Prevention of surgical site infections](#)
- [Prevention of bloodstream infections](#)

- [Prevention of catheter-associated urinary tract infections](#)

Level of evidence ranking (I – V) and strength of recommendation ranking (A – D, Unresolved issue [UI], No recommendation) definitions are presented at the end of "Major Recommendations" field.

Hand Hygiene

1. During the delivery of healthcare, avoid unnecessary touching of surfaces in close proximity to the patient to prevent both contamination of clean hands from environmental surfaces and transmission of pathogens from contaminated hands to surfaces. **B-IV***
2. When hands are visibly dirty, contaminated with proteinaceous material, or visibly soiled with blood or body fluids, wash hands with either a non-antimicrobial soap and water or an antimicrobial soap and water. **A-IV***
3. If hands are not visibly soiled, or after removing visible material with non-antimicrobial soap and water, decontaminate hands in the clinical situations described in recommendations 3 A-G below. The preferred method of hand decontamination is with an alcohol-based hand rub. Alternatively, hands may be washed with an antimicrobial soap and water. Frequent use of alcohol-based hand rub immediately following handwashing with non-antimicrobial soap may increase the frequency of dermatitis. **A-IV***

Perform Hand Hygiene

- A. Before having direct contact with patients. **A-IV***
 - B. After contact with blood, body fluids or excretions, mucous membranes, nonintact skin, or wound dressings. **A-IV***
 - C. After contact with a patient's intact skin (e.g., when taking a pulse or blood pressure or lifting a patient). **A-IV***
 - D. If hands will be moving from a contaminated-body site to a clean-body site during patient care. **A-IV***
 - E. After contact with inanimate objects (including medical equipment) in the immediate vicinity of the patient. **A-IV***
 - F. Before donning gloves and after removing gloves. **A-IV***
 - G. Before performing any invasive procedures. **A-IV***
4. Wash hands with non-antimicrobial soap and water or with antimicrobial soap and water if contact with spores (e.g., *Clostridium difficile* or *Bacillus anthracis*) is likely to have occurred. The physical action of washing and rinsing hands under such circumstances is recommended because alcohols, chlorhexidine, iodophors, and other antiseptic agents have poor activity against spores. **B-IV***
 5. A. Do not wear artificial fingernails or extenders if duties include direct contact with patients (e.g., those in intensive care units (ICUs) or operating rooms). **A-IV***
B. Do not wear artificial nails in food service areas or environments that require sterile conditions (e.g., pharmacies or sterile processing departments) **A-IV***

Personal Protective Equipment (PPE)

6. Observe the following principles of use:
 - A. Wear PPE, as described in recommendations 7-9, when the nature of the anticipated patient interaction indicates that contact with blood or body fluids may occur. **B-IV***
 - B. Prevent contamination of clothing and skin during the process of removing PPE (see Attachment A in the original guideline document). **B-IV***
 - C. Before leaving the patient's room or cubicle, remove and discard PPE. **B-IV***

Gloves

7. A. Wear gloves when it can be reasonably anticipated that contact with blood or other potentially infectious materials, mucous membranes, nonintact skin, or potentially contaminated intact skin (e.g., of a patient incontinent of stool or urine) could occur. **B-IV***
- B. Wear gloves with fit and durability appropriate to the task. **B-IV***
 - i. Wear disposable medical examination gloves for providing direct patient care.
 - ii. Wear disposable medical examination gloves or reusable utility gloves for cleaning the environment or medical equipment.
- C. Remove gloves after contact with a patient and/or the surrounding environment including medical equipment, using proper technique to prevent hand contamination (see Attachment A in the original guideline document). Do not wear the same pair of gloves for the care of more than one patient. Do not wash gloves for the purpose of reuse since this practice has been associated with transmission of pathogens. **B-IV***
- D. Change gloves during patient care if the hands will move from a contaminated body-site (e.g., perineal area) to a clean body-site (e.g., face). **B-IV***

Gowns

8. A. Wear a gown that is appropriate to the task, to protect skin and prevent soiling contamination of clothing during procedures and patient-care activities when contact with blood, body fluids, secretions, or excretions is anticipated. **B-IV***
 - i. Wear a gown for direct patient contact if the patient has uncontained secretions or excretions.
 - ii. Remove gown and perform hand hygiene before leaving the patient's environment. **B-IV***
- B. Do not reuse gowns, even for repeated contacts with the same patient. **B-IV***

C. Routine donning of gowns upon entrance into a high risk unit (e.g., ICU, neonatal ICU [NICU], hematopoietic stem cell transplant [HSCT] unit) is not indicated. **B-IV***

Mouth, Nose, Eye Protection

9. Use PPE to protect the mucous membranes of the eyes, nose and mouth during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions and excretions. Select masks, goggles, face shields, and combinations of each according to the need anticipated by the task performed. **B-IV***
10. During aerosol-generating procedures (e.g., bronchoscopy, suctioning of the respiratory tract [if not using in-line suction catheters], endotracheal intubation) in patients who are not suspected of being infected with an agent for which respiratory protection is otherwise recommended (e.g., *Mycobacterium tuberculosis*, severe acute respiratory syndrome [SARS] or hemorrhagic fever viruses), wear one of the following: a face shield that fully covers the front and sides of the face, a mask with attached shield, or a mask and goggles (in addition to gloves and gown). **B-IV***

Respiratory Hygiene/Cough Etiquette

11. Educate healthcare personnel on the importance of source control measures to contain respiratory secretions to prevent droplet and fomite transmission of respiratory pathogens, especially during seasonal outbreaks of viral respiratory tract infections (e.g., influenza, respiratory syncytial virus [RSV], adenovirus, parainfluenza virus) in communities. **A-IV***
12. Implement the following measures to contain respiratory secretions in patients and accompanying individuals who have signs and symptoms of a respiratory infection, beginning at the point of initial encounter in a healthcare setting (e.g., triage, reception and waiting areas in emergency departments, outpatient clinics and physician offices). **A-IV***
 - A. Post signs at entrances and in strategic places (e.g., elevators, cafeterias) within ambulatory and inpatient settings with instructions to patients and other persons with symptoms of a respiratory infection to cover their mouths/noses when coughing or sneezing, use and dispose of tissues, and perform hand hygiene after hands have been in contact with respiratory secretions. **A-IV***
 - B. Provide tissues and no-touch receptacles (e.g., foot-pedal operated lid or open, plastic-lined waste basket) for disposal of tissues. **A-IV***
 - C. Provide resources and instructions for performing hand hygiene in or near waiting areas in ambulatory and inpatient settings; provide conveniently-located dispensers of alcohol-based hand rubs and, where sinks are available, supplies for handwashing. **B-IV***
 - D. During periods of increased prevalence of respiratory infections in the community (e.g., as indicated by increased school absenteeism, increased number of patients seeking care for a respiratory infection), offer masks to coughing patients and other symptomatic persons (e.g., persons who accompany ill patients) upon entry into the facility or medical office and encourage them to maintain special separation, ideally a distance of at least 3 feet, from others in common waiting areas. **B-IV***

- Some facilities may find it logistically easier to institute this recommendation year-round as a standard of practice. **A-IV***

Patient Placement

13. Include the potential for transmission of infectious agents in patient-placement decisions. Place patients who pose a risk for transmission to others (e.g., uncontained secretions, excretions or wound drainage; infants with suspected viral respiratory or gastrointestinal infections) in a single-patient room when available. **B-IV***
14. Determine patient placement based on the following principles: **A-IV***
 - Route(s) of transmission of the known or suspected infectious agent
 - Risk factors for transmission in the infected patient
 - Risk factors for adverse outcomes resulting from a healthcare-associated infection (HAI) in other patients in the area or room being considered for patient placement
 - Availability of single-patient rooms
 - Patient options for room-sharing (e.g., cohorting patients with the same infection)

Patient-Care Equipment and Instruments/Devices

15. Establish policies and procedures for containing, transporting, and handling patient-care equipment and instruments/devices that may be contaminated with blood or body fluids. **A-IV***
16. Remove organic material from critical and semi-critical instrument/devices, using recommended cleaning agents before high level disinfection and sterilization to enable effective disinfection and sterilization processes. **A-IV***
17. Wear PPE (e.g., gloves, gown), according to the level of anticipated contamination, when handling patient-care equipment and instruments/devices that are visibly soiled or may have been in contact with blood or body fluids. **A-IV***

Care of the Environment

18. Establish policies and procedures for routine and targeted cleaning of environmental surfaces as indicated by the level of patient contact and degree of soiling. **A-IV***
19. Clean and disinfect surfaces that are likely to be contaminated with pathogens, including those that are in close proximity to the patient (e.g., bed rails, over bed tables) and frequently-touched surfaces in the patient care environment (e.g., door knobs, surfaces in and surrounding toilets in patients' rooms) on a more frequent schedule compared to that for other surfaces (e.g., horizontal surfaces in waiting rooms). **B-IV***
20. Use Environmental Protection Agency (EPA)-registered disinfectants that have microbicidal (i.e., killing) activity against the pathogens most likely to contaminate the patient-care environment. Use in accordance with manufacturer's instructions. **B-IV***
 - Review the efficacy of in-use disinfectants when evidence of continuing transmission of an infectious agent (e.g., rotavirus, *Clostridium difficile*, norovirus) may indicate resistance to the in-use product and change to a more effective disinfectant as indicated. **B-IV***

21. In facilities that provide health care to pediatric patients or have waiting areas with child play toys (e.g., obstetric/gynecology offices and clinics), establish policies and procedures for cleaning and disinfecting toys at regular intervals. **B-IV***

Use the following principles in developing this policy and procedures: **B-IV***

- Select play toys that can be easily cleaned and disinfected
- Do not permit use of stuffed furry toys if they will be shared
- Clean and disinfect large stationary toys (e.g., climbing equipment) at least weekly and whenever visibly soiled
- If toys are likely to be mouthed, rinse with water after disinfection; alternatively wash in a dishwasher
- When a toy requires cleaning and disinfection, do so immediately or store in a designated labeled container separate from toys that are clean and ready for use.

22. Include multi-use electronic equipment in policies and procedures for preventing contamination and for cleaning and disinfection, especially those items that are used by patients, those used during delivery of patient care, and mobile devices that are moved in and out of patient rooms frequently (e.g., daily). **B-IV***

- No recommendation for use of removable protective covers or washable keyboards. **UI***

Textiles and Laundry

23. Handle used textiles and fabrics with minimum agitation to avoid contamination of air, surfaces and persons. **B-IV***
24. If laundry chutes are used, ensure that they are properly designed, maintained, and used in a manner to minimize dispersion of aerosols from contaminated laundry. **B-IV***

Safe Injection Practices

The following recommendations apply to the use of needles, cannulae that replace needles, and, where applicable, intravenous delivery systems.

25. Use aseptic technique to avoid contamination of sterile injection equipment. **A-IV***
26. Do not administer medications from a syringe to multiple patients, even if the needle or cannula on the syringe is changed. Needles, cannulae and syringes are sterile, single-use items; they should not be reused for another patient or to access a medication or solution that might be used for a subsequent patient. **A-IV***
27. Use fluid infusion and administration sets (i.e., intravenous bags, tubing and connectors) for one patient only and dispose appropriately after use. Consider a syringe or needle/cannula contaminated once it has been used to enter or connect to a patient's intravenous infusion bag or administration set. **A-IV***
28. Use single-dose vials for parenteral medications whenever possible. **A-IV***
29. Do not administer medications from single-dose vials or ampules to multiple patients or combine leftover contents for later use. **A-IV***

30. If multidose vials must be used, both the needle or cannula and syringe used to access the multidose vial must be sterile. **A-IV***
31. Do not keep multidose vials in the immediate patient treatment area and store in accordance with the manufacturer's recommendations; discard if sterility is compromised or questionable. **A-IV***
32. Do not use bags or bottles of intravenous solution as a common source of supply for multiple patients. **B-IV***

Infection Control Practices for Special Lumbar Puncture Procedures

33. Wear a surgical mask when placing a catheter or injecting material into the spinal canal or subdural space (i.e., during myelograms, lumbar puncture and spinal or epidural anesthesia). **B-IV***

Worker Safety

34. Adhere to federal and state requirements for protection of healthcare personnel from exposure to bloodborne pathogens. For federal regulations refer to Occupational Safety and Health Administration (OSHA) regulations for bloodborne pathogens 29 CFR 1910.1030 and for state requirements refer to the Massachusetts Department of Public Health Hospital Licensure Regulations 105 CMR 130.000. **A-IV***

*Identifies evidence from the CDC's updated guidelines without repeating the detailed literature review process.

Definitions:

Level of Evidence Ranking

Level I: Strong evidence from at least one well-designed randomized controlled trial

Level II: Evidence from well-designed non-randomized trials; cohort or case-controlled analytic studies (preferably from >1 center); multiple time-series studies

Level III: Well-designed descriptive studies from more than one center or research group

Level IV: Opinions of authorities (e.g., guidelines), clinical evidence; reports of expert committees

Level V: No quality studies found and no clear guidance from expert committees, authorities or other sources

Strength of Recommendation Ranking

Category A: Strongly recommended

Category B: Recommended for implementation

Category C: Consider for implementation

Category D: Recommended against implementation

Category UI: Unresolved issue

No recommendation: Unresolved issue. Practices for which insufficient evidence or no consensus regarding efficacy exists.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Evidence-based best practice guidelines and interventions for prevention of healthcare-associated infection will promote patient and healthcare worker safety and improve health outcomes by reducing the risk of acquiring and transmitting healthcare associated infections.

POTENTIAL HARMS

Frequent use of alcohol-based hand rub immediately following handwashing with non-antimicrobial soap may increase the frequency of dermatitis.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The final recommendations contained in *Prevention and Control of Healthcare-Associated Infections in Massachusetts* were adopted by the Betsy Lehman Center for Patient Safety and Medical Error Reduction (BLC) and the Massachusetts Department of Public Health (MDPH). MDPH incorporated the recommendations into the reporting requirements, and developed an assessment tool for surveyors to use to evaluate the implementation of best practices.

IMPLEMENTATION TOOLS

Staff Training/Competency Material

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Standard precautions in hospitals. In: Betsy Lehman Center for Patient Safety and Medical Error Reduction, JSI Research and Training Institute, Inc. Prevention and control of healthcare-associated infections in Massachusetts. Part 1: final recommendations of the Expert Panel. Boston (MA): Massachusetts Department of Public Health; 2008 Jan 31. p. 42-9.

ADAPTATION

The guideline was adapted from: Siegel, J. D., E. Rhinehart, et al. (2007). 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Health Care Settings. Am J Infect Control 35(10 Suppl 2): S65-164.

DATE RELEASED

2008 Jan 31

GUIDELINE DEVELOPER(S)

Betsy Lehman Center for Patient Safety and Medical Error Reduction - State/Local Government Agency [U.S.]
Massachusetts Department of Public Health - State/Local Government Agency [U.S.]

SOURCE(S) OF FUNDING

Massachusetts Department of Public Health

GUIDELINE COMMITTEE

Massachusetts Healthcare-Associated Infections Expert Panel

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the [Massachusetts Department of Public Health Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Betsy Lehman Center for Patient Safety and Medical Error Reduction, JSI Research and Training Institute, Inc. Prevention and control of healthcare-associated infections in Massachusetts. Part 2: findings from complementary research activities. Boston (MA): Massachusetts Department of Public Health; 2008 Jan 31. 131 p. Available in Portable Document Format (PDF) from the [Massachusetts Department of Public Health Web site](#).
- Handwashing education materials for health care professionals. Available from the [Massachusetts Department of Public Health Web site](#).

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on October 3, 2008. The information was verified by the guideline developer on December 22, 2009.

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